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HR 26

REQUESTING A STUDY TO IDENTIFY THE NEEDS OF THE
PACIFIC RIM COUNTRIES WITH REGARD TO RENEWABLE ENERGY SYSTEMS

Statement for
House Committee on
Planning, Energy and Environmental Protection
Public Hearing - February 4, 1988

By
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HR 26 appropriately recognizes the alternate energy resources in Hawaii; the existing competence in the State with regard to research and development technologies involved in using these renewable energy sources; the potential advantages of alternative sources of energy for developing countries in the Pacific Basin; and the opportunity of the State to export renewable energy technologies that will address the needs of developing island countries. The resolution calls upon "appropriate" agencies to conduct a study to identify the renewable energy needs of developing countries in the Pacific Basin. The study is directed to include an assessment of existing energy opportunities in Hawaii and to offer specific recommendations for the State to utilize and promote existing technology in the alternate energy field.

Our statement on this resolution is not an institutional position of the University of Hawaii.

HR 26 constitutes a significant and appropriate recognition of the importance and intrinsic value of alternative energy technologies. Renewable energy systems are unquestionably the only economically and environmentally acceptable options available for long range energy planning. However, we have two reservations about the resolution as presently written.

First, the resolution appears to minimize economic factors which affect Hawaii's role in the development of renewable energy technologies. In particular, development of centralized energy systems is enormously

capital-intensive, especially in transitional stages from experimental to commercial scale development. In the case of OTEC, previous work to a large extent has refined theoretical and conceptual issues. What presently is needed is a commercial scale pilot plant for engineering research and development. American accomplishments toward development of OTEC, including those underway in Hawaii, presently lag ongoing efforts in Japan, primarily as a consequence of the unwillingness of government and industry to support the high capital costs of commercial scale OTEC development. Furthermore, with regard to supplying hardware to Pacific Basin nations, the lack of a strong industrial base in Hawaii constitutes a significant liability in competing with Japan for delivery of renewable energy systems to the developing markets. Thus, while there is pressing need to pursue development of alternative energy technologies for economic and environmental reasons, priority should be given to local implementation of large-scale, centralized energy systems.

Our second concern addresses the consideration of environmental issues, including social and cultural implications, which are attendant upon development of all forms of energy resources. The need for early planning and awareness of potential environmental issues inherent in energy development has been directly recognized in state and federal statutes since 1970. In the evaluation of alternate energy resources and their appropriateness for various communities or countries as is proposed in HR 26, it is essential that environmental issues including social/cultural issues be considered along with availability of the resource, infrastructure needs, siting considerations and economics.

Expressions of concern relative to issues arising from expansion of tourism on many of the Pacific islands have recently been brought to our attention. We have been asked by the U.S. Environmental Protection Agency to conduct a series of educational workshops on Environmental Assessment procedures for local environmental managers in Saipan, Guam, Pelau, Pohnpei, Truk, Majuro, and American Samoa. The rapid expansion of tourist developments in these small island habitats has created significant problems relating to pollution and destruction of reef communities on which many families rely for their food, contamination of water supplies, disposal of both solid and liquid waste, destruction of protective coral reef habitats, and degradation of land surfaces resulting in sediment impacts to coastal areas.

In the analysis of any development as far-reaching as an energy source, it is essential that relevant environmental materials be developed simultaneously with the physical data base. We strongly urge that an office or organization with responsibility for environmental perspective be added to the list of designated agencies to carry out this study. Given the current and forthcoming involvement of the Environmental Center in environmental issues in the developing Pacific island countries, you may wish to consider adding the University of Hawaii Environmental Center to the list.

Finally, we note that HR 26 directs several organizations and agencies to assess alternate energy scenarios for Hawaii and developing nations of the Pacific Basin. However, no provisions are made in the resolution for funding to support the requested studies. We recommend that adequate funding sources be specified in an amended resolution.